CLAIM AMENDMENTS

1. (Currently Amended) A polymer comprising a phenolic monomeric unit wherein the H atom of the hydroxy group of the phenolic monomeric unit is replaced by a N-imide group Q having the structure

$$-- (L)_{\overline{x}}^{-N} \prod_{T}^{1}$$

wherein L is a linking group, wherein k is 0 or 1, wherein L is covalently bound to the O atom of the polymer for when k is 1, or wherein the N atom of the N-imide group is covalently bound to the O atom of the polymer for when k is 0, wherein X or Y are independently selected from O or S, and wherein T¹ and T² represent a terminal group.

- 2. (Original) A polymer according to claim 1 wherein the terminal groups T^1 and T^2 are independently selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein T^1 and T^2 together with the N-imide group represent the necessary atoms to form a cyclic structure, or wherein T^1 and T^2 represent the following structures $-L^1-R^1$ and $-L^2-R^2$, wherein L^1 and L^2 represent independently a linking group, wherein R^1 and R^2 are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, halogen, -CN, or $-NO_2$, or therein two groups selected from each L^1 , L^2 , R^1 and R^2 together represent the necessary atoms to form a cyclic structure.
- 3. (Currently Amended) A polymer according to elaims claim 1 or 2 wherein the N-imide group Q has the following formula

$$-(L) - N - G^{1}$$

wherein G¹ and G² are independently selected from O, S, NR³ or CR⁴R⁵, with the limitation that G¹ is not O or S when G² is O and that G¹ is not O or S when G² is NR³, wherein R⁴ and R⁵ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or -L³-R⁶, wherein L³ is a linking group, wherein R³ and R⁶ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R³, R⁴, R⁵, R⁶ and L³ together represent the necessary atoms to form a cyclic structure.

4. (Currently Amended) A polymer according to elaims claim 1 or 2 wherein the N-imide group Q has the following formula

$$-(F) \stackrel{k}{=} M \xrightarrow{g_2} g_4$$

wherein G³ to G⁵ are independently selected from O, S, NR¹ or CR²R9, with the limitation that at least one group, selected from G³ to G⁵, is CR²R9 and that two neighboring groups, selected from G³ to G⁵, are not represented by O and S, by O and NR¹, by S and NR¹ or by O and O, or wherein G⁴ is a linking group, wherein R² and R9 are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or -L⁴-L¹⁰, wherein L⁴ is a linking group, wherein R¹ and R¹⁰ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroarl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R¹, R², R², R¹⁰ and L⁴ together represent the necessary atoms to form a cyclic structure.

5. (Currently Amended) A polymer according to elaims claim 1 or 2 wherein the N-imide group Q has the following formula

$$-(L) \underset{Y}{\stackrel{\times}{=}} N \xrightarrow{\qquad \qquad } R^{14}$$

wherein G^6 is a group selected from O, S, NR^{11} or $CR^{12}R^{13}$, wherein m is o or 1, wherein R^{12} to R^{15} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or $-L^5-R^{16}$, wherein L^5 is a linking group, wherein R^{11} and R^{16} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} and L^5 together represent the necessary atoms to form a cyclic structure.

6. (Currently Amended) A polymer according to claims claim 1 or 2 wherein the N-imide group Q has the following formula

$$--(L) = N = \left[\frac{1}{p} R^{20} \right]$$

wherein E¹ and E² are independently selected from O, S, NR¹⁷ or CR¹⁸R¹⁹, wherein p and q are independently 0 or 1, wherein R¹⁸ to R²¹ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or -L⁶-R²², wherein L⁶ is a linking group, wherein R¹⁷ and R²² are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

7. (Currently Amended) A polymer according to claims claim 1 or 2 wherein the N-imide group Q has one of the following formula:

$$-(L)_{\overline{k}}$$
 \mathbb{R}^{23} \mathbb{I}_{a}

$$-(L)_{k}$$

$$(L)_{k}$$

$$R^{24}$$

$$R^{25}$$

$$R^{25}$$

$$R^{25}$$

$$R^{26}$$

wherein each R²³ to R²⁶ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, halogen, -SO₂-NH-R²⁷, -NH-SO₂-R³⁰, -CO-NR²⁷-R²⁸, -NR²⁷-CO-R³⁰, -NR²⁷-CO-NR²⁸-R²⁹, -NR²⁷-CS-NR²⁸-R²⁹, -NR²⁷-CO-O-R²⁸, -O-CO-NR²⁷-R²⁸, -O-CO-R³⁰, -CO-O-R²⁷, - $CO-R^{27}$, $-SO_3-R^{27}$, $-O-SO_2-R^{30}$, $-SO_2-R^{27}$, $-SO-R^{30}$, $-P(=O)(-O-R^{27})(-O-R^{28})$, $-O-P(=O)(-O-R^{27})(-O-R^{28})$, $-O-P(=O)(-O-R^{27})(-O-R^{28})$, $-O-P(=O)(-O-R^{28})$ R²⁷)(-O-R²⁸), -NR²⁷-R²⁸, -O-R²⁷, -S-R²⁷, -CN, -NO₂, -N(-CO-R²⁷)(-CO-R²⁸), -Nphthalimidyl, -M-N-phthalimidyl, or -M-R²⁷, wherein M represents a divalent linking group containing 1 to 8 carbon atoms, wherein R²⁷ to R²⁹ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, wherein R³⁰ is selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, wherein a and d are independently 0, 1, 2, 3 or 4, wherein b and c are independently 0, 1, 2 or 3, wherein E³ is selected from O, S, NR³¹ or CR³²R³³, wherein R³² and R³³ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or -L⁷ -R³⁴, wherein L⁷ is a linking group, wherein R³¹ and R³⁴ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

8. (Currently Amended) A polymer according to elaims claim 1 or 2 wherein the N-imide group Q has one of the following formula:

wherein R^{35} to R^{44} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, halogen, $-SO_2$ -NH- R^{45} , $-NH-SO^2$ - R^{48} , $-CO-NR^{45}$ - R^{46} , $-NR^{45}$ -CO- R^{48} , $-NR^{45}$ -CO- R^{46} , $-NR^{45}$ -CO- R^{46} , $-NR^{45}$ -CO- R^{46} , $-NR^{45}$ -CO- R^{45} , $-R^{45}$, -

9. (Currently Amended) A polymer according to elaims claim 1 or 2 wherein the N-imide group Q has one of the following formula:

wherein R⁴⁹ to R⁵⁶ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, and wherein R⁵⁷ and R⁵⁸ are independently selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

10. (Currently Amended) A polymer according to claims claim 1 or 2 wherein the N-imide group Q has one of the following formula:

- 11. (Currently Amended) A polymer according to any of the preceding claims claim 1, wherein said polymer comprising a phenolic monomeric unit is a novolac, resol or polyvinylphenol.
- 12. (Currently Amended) A heat-sensitive lithographic printing plate precursor comprising a support having a hydrophilic surface and an oleophilic coating [[,]] provided on the hydrophilic surface, said coating comprising an infrared light absorbing agent and a polymer according to any of the preceding claims comprising a phenolic monomeric unit wherein the H atom of the hydroxy group of the phenolic monomeric unit is replaced by a Nimide group Q having the structure

wherein L is a linking group, wherein k is 0 or 1, wherein L is covalently bound to the O atom of the polymer when k is 1, or wherein the N atom of the N-imide group is covalently bound to the O atom of the polymer when k is 0, wherein X or Y are independently selected from O or S, and wherein T¹ and T² represent a terminal group.

13. (Original) A lithographic printing plate precursor according to claim 12, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.

- 14. (Currently Amended) A lithographic printing plate precursor according to claim 13, wherein said dissolution inhibitor is selected from the group consisting of
- [[-]] an organic compound which comprises at least one aromatic group and a hydrogen bonding site, and/or
- [[-]] a polymer or surfactant comprising siloxane orperfluoroalkyl units, and mixtures thereof.
 - 15. (Canceled)
- 16. (Currently Amended) A lithographic printing plate precursor according to claim 12, wherein said coating further emprising comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.
 - 17. (Canceled)
- 18. (New) A polymer according to claim 2 wherein the N-imide group Q has the following formula

$$-- (\Gamma) \xrightarrow{\kappa} \mathbb{N} \xrightarrow{\overset{\Lambda}{\longrightarrow}} \mathbb{G}_1$$

wherein G¹ and G² are independently selected from O, S, NR³ or CR⁴R⁵, with the limitation that G¹ is not O or S when G² is O and that G¹ is not O or S when G² is NR³, wherein R⁴ and R⁵ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or -L³-R⁶, wherein L³ is a linking group, wherein R³ and R⁶ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R³, R⁴, R⁵, R⁶ and L³ together represent the necessary atoms to form a cyclic structure.

19. (New) A polymer according to claim 2 wherein the N-imide group Q has the following formula

$$-(L) \stackrel{k}{=} N \stackrel{g^3}{\longrightarrow} G^4$$

wherein G³ to G⁵ are independently selected from O, S, NR¹ or CR²R9, with the limitation that at least one group, selected from G³ to G⁵, is CR²R9 and that two neighbouring groups, selected from G³ to G⁵, are not represented by O and S, by O and NR¹, by S and NR¹ or by O and O, or wherein G⁴ is a linking group, wherein R³ and R9 are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or -L⁴-L¹⁰, wherein L⁴ is a linking group, wherein R¹ and R¹⁰ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroarl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R¹, R³, R³, R¹⁰ and L⁴ together represent the necessary atoms to form a cyclic structure.

20. (New) A polymer according to claim 2 wherein the N-imide group Q has the following formula

$$-(L) \underset{Y}{\longleftarrow} \mathbb{N}$$

wherein G^6 is a group selected from O, S, NR^{11} or $CR^{12}R^{13}$, wherein m is o or 1, wherein R^{12} to R^{15} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or $-L^5-R^{16}$, wherein L^5 is a linking group, wherein R^{11} and R^{16} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} and R^{16} together represent the necessary atoms to form a cyclic structure.

21. (New) A polymer according to claim 2 wherein the N-imide group Q has the following formula

$$- (L)_{k} N \int_{\mathbf{E}^{\frac{1}{2}}\mathbf{q}} \mathbf{R}^{20}$$

wherein E^1 and E^2 are independently selected from O, S, NR^{17} or $CR^{18}R^{19}$, wherein p and q are independently 0 or 1, wherein R^{18} to R^{21} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or $-L^6-R^{22}$, wherein L^6 is a linking group, wherein R^{17} and R^{22} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

22. (New) A polymer according to claim 2 wherein the N-imide group Q has one of the following formula:

$$-(L) = R^{23}$$

$$-(L)_{k} - N$$

$$Y$$

$$\left[R^{24} \right]_{h}$$

$$\left[R^{25} \right]_{c}$$

$$-(L) = R^{26} d$$

wherein each R^{23} to R^{26} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, halogen, $-SO_2$ -NH- R^{27} , $-NH-SO_2$ - R^{30} , $-CO-NR^{27}$ - R^{28} , $-NR^{27}$ -CO- R^{30} , $-NR^{27}$ -CO- R^{28} - R^{29} , $-NR^{27}$ -CS- R^{28} - R^{29} , $-NR^{27}$ -CO- R^{28} - R^{29} , $-R^{29}$, $-R^{$

CO-R²⁷, -SO₃-R²⁷, -O-SO₂-R³⁰, -SO₂-R²⁷, -SO-R³⁰, -P(=O)(-O-R²⁷)(-O-R²⁸), -O-P(=O)(-O-R²⁷)(-O-R²⁸), -NR²⁷-R²⁸, -O-R²⁷, -S-R²⁷, -CN, -NO₂, -N(-CO-R²⁷)(-CO-R²⁸), -N-phthalimidyl, or -M-R²⁷, wherein M represents a divalent linking group containing 1 to 8 carbon atoms, wherein R²⁷ to R²⁹ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, wherein R³⁰ is selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, wherein a and d are independently 0, 1, 2, 3 or 4, wherein b and c are independently 0, 1, 2 or 3, wherein E³ is selected from O, S, NR³¹ or CR³²R³³, wherein R³² and R³³ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or -L⁷ -R³⁴, wherein L⁷ is a linking group, wherein R³¹ and R³⁴ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

23. (New) A polymer according to claim 2 wherein the N-imide group Q has one of the following formula:

wherein R^{35} to R^{44} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, halogen, $-SO_2$ -NH-R⁴⁵, $-NH-SO^2$ -R⁴⁸, $-CO-NR^{45}$ -R⁴⁶, $-NR^{45}$ -CO-R⁴⁸, $-NR^{45}$ -CO-NR⁴⁶-R⁴⁷, $-NR^{45}$ -CO-O-R⁴⁶, -O-CO-NR⁴⁵-R⁴⁶, -O-CO-R⁴⁸, -CO-O-R⁴⁵, -CO-O-R⁴⁵, $-SO_2$ -R⁴⁸, $-SO_2$ -R⁴⁸, $-SO_2$ -R⁴⁸, $-P(=O)(O-R^{45})(-O-R^{46})$, -O-P(=O)(-O-R⁴⁵)(-O-R⁴⁵),

-NR⁴⁵-R⁴⁶, -O-R⁴⁵, -S-R⁴⁵, -CN, -N(-CO-R⁴⁵)(-CO-R⁴⁶), -N-phthalimidyl, -M-N-phthalimidyl, or -M-R⁴⁵, wherein M represents a divalent linking group containing 1 to 8 carbon atoms, wherein R⁴⁵ to R⁴⁷ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, wherein R⁴⁸ is selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

24. (New) A polymer according to claim 2 wherein the N-imide group Q has one of the following formula:

wherein R⁴⁹ to R⁵⁶ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, and wherein R⁵⁷ and R⁵⁸ are independently selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

25. (New) A polymer according to claim 2 wherein the N-imide group Q has one of the following formula:

- 26. (New) A heat-sensitive lithographic printing plate precursor according to claim 12, wherein the terminal groups T¹ and T² are independently selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein T¹ and T² together with the N-imide group represent the necessary atoms to form a cyclic structure, or wherein T¹ and T² represent the following structures -L¹-R¹ and -L²-R², wherein L¹ and L² represent independently a linking group, wherein R¹ and R² are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, halogen, -CN, or -NO₂, or therein two groups selected from each L¹, L², R¹ and R² together represent the necessary atoms to form a cyclic structure.
- 27. (New) A heat-sensitive lithographic printing plate precursor according to claim 12, wherein the N-imide group Q has the following formula

$$-(L) = N$$

$$G^3$$

$$G^4$$

wherein G³ to G⁵ are independently selected from O, S, NR⁷ or CR⁸R⁹, with the limitation that at least one group, selected from G³ to G⁵, is CR⁸R⁹ and that two neighboring groups, selected from G³ to G⁵, are not represented by O and S, by O and NR⁷, by S and

NR⁷ or by O and O, or wherein G⁴ is a linking group, wherein R⁸ and R⁹ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or -L⁴-L¹⁰, wherein L⁴ is a linking group, wherein R⁷ and R¹⁰ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroarl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R⁷, R⁸, R⁹, R¹⁰ and L⁴ together represent the necessary atoms to form a cyclic structure.

28. (New) A heat-sensitive lithographic printing plate precursor according to claim 12, wherein the N-imide group Q has the following formula

$$--(L) \stackrel{X}{\longleftarrow} G^3$$

wherein G³ to G⁵ are independently selected from O, S, NR¹ or CR²R9, with the limitation that at least one group, selected from G³ to G⁵, is CR²R9 and that two neighboring groups, selected from G³ to G⁵, are not represented by O and S, by O and NR¹, by S and NR¹ or by O and O, or wherein G⁴ is a linking group, wherein R² and R9 are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or -L⁴-L¹⁰, wherein L⁴ is a linking group, wherein R¹ and R¹⁰ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroarl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R¹, R², R³, R9, R¹⁰ and L⁴ together represent the necessary atoms to form a cyclic structure.

29. (New) A heat-sensitive lithographic printing plate precursor according to claim 12, wherein the N-imide group Q has the following formula

$$-(L) = R^{14}$$

$$R^{15}$$

wherein G^6 is a group selected from O, S, NR^{11} or $CR^{12}R^{13}$, wherein m is o or 1, wherein R^{12} to R^{15} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or $-L^5-R^{16}$, wherein L^5 is a linking group, wherein R^{11} and R^{16} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or wherein two groups selected from each R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} and L^5 together represent the necessary atoms to form a cyclic structure.

30. (New) A heat-sensitive lithographic printing plate precursor according to claim 12, wherein the N-imide group Q has the following formula

$$--(L) \frac{X}{k} R^{20}$$

$$= \frac{\left[E^{\frac{1}{2}} R^{20}\right]}{X}$$

wherein E^1 and E^2 are independently selected from O, S, NR^{17} or $CR^{18}R^{19}$, wherein p and q are independently 0 or 1, wherein R^{18} to R^{21} are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group or $-L^6-R^{22}$, wherein L^6 is a linking group, wherein R^{17} and R^{22} are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

31. (New) A heat-sensitive lithographic printing plate precursor according to claim 12, wherein the N-imide group Q has one of the following formula:

$$-(L)$$
 $\frac{1}{k}$ N $\frac{1}{k}$ R^{23} $\frac{1}{k}$

$$-(L)_{k} - (L)_{k} - (L)$$

wherein each R²³ to R²⁶ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, halogen, -SO₂-NH-R²⁷, -NH-SO₂-R³⁰, -CO-NR²⁷-R²⁸, -NR²⁷-CO-R³⁰, -NR²⁷-CO- $NR^{28}-R^{29}$, $-NR^{27}-CS-NR^{28}-R^{29}$, $-NR^{27}-CO-O-R^{28}$, $-O-CO-NR^{27}-R^{28}$, $-O-CO-R^{30}$, $-CO-O-R^{27}$, $-CO-O-R^{28}$, $-CO-O-R^{29}$, $-CO-O-C-O-R^{29}$, $-CO-O-C-O-R^{29}$, $-CO-O-C-O-R^{29}$, $CO-R^{27}$, $-SO_3-R^{27}$, $-O-SO_2-R^{30}$, $-SO_2-R^{27}$, $-SO-R^{30}$, $-P(=O)(-O-R^{27})(-O-R^{28})$, $-O-P(=O)(-O-R^{27})(-O-R^{28})$ R²⁷)(-O-R²⁸), -NR²⁷-R²⁸, -O-R²⁷, -S-R²⁷, -CN, -NO₂, -N(-CO-R²⁷)(-CO-R²⁸), -Nphthalimidyl, -M-N-phthalimidyl, or -M-R²⁷, wherein M represents a divalent linking group containing 1 to 8 carbon atoms, wherein R²⁷ to R²⁹ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, wherein R³⁰ is selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, wherein a and d are independently 0, 1, 2, 3 or 4, wherein b and c are independently 0, 1, 2 or 3, wherein E³ is selected from O, S, NR³¹ or CR³²R³³, wherein R³² and R³³ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, or -L⁷ -R³⁴, wherein L⁷ is a linking group, wherein R³¹ and R³⁴ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

32. (New) A heat-sensitive lithographic printing plate precursor according to claim 12, wherein the N-imide group Q has one of the following formula:

wherein R³⁵ to R⁴⁴ are independently selected from hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, halogen, -SO₂-NH-R⁴⁵, -NH-SO²-R⁴⁸, -CO-NR⁴⁵-R⁴⁶, -NR⁴⁵-CO-R⁴⁸, -NR⁴⁵-CO-NR⁴⁶-R⁴⁷, -NR⁴⁵-CS-NR⁴⁶-R⁴⁷, -NR⁴⁵-CO-O-R⁴⁶, -O-CO-NR⁴⁵-R⁴⁶, -O-CO-R⁴⁸, -CO-O-R⁴⁵, -CO-R⁴⁵, -SO₃-R⁴⁵, -O-SO₂-R⁴⁸, -SO₂-R⁴⁵, -SO-R⁴⁸, -P(=O)(O-R⁴⁵)(-O-R⁴⁶), -O-P(=O)(-O-R⁴⁵)(-O-R⁴⁶), -NR⁴⁵-R⁴⁶, -O-R⁴⁵, -S-R⁴⁵, -CN, -N(-CO-R⁴⁵)(-CO-R⁴⁶), -N-phthalimidyl, -M-N-phthalimidyl, or -M-R⁴⁵, wherein M represents a divalent linking group containing 1 to 8 carbon atoms, wherein R⁴⁵ to R⁴⁷ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group, wherein R⁴⁸ is selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heteroaryl, aralkyl or heteroaralkyl group.

33. (New) A heat-sensitive lithographic printing plate precursor according to claim 12, wherein the N-imide group Q has one of the following formula:

wherein R⁴⁹ to R⁵⁶ are independently selected from hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group,

and wherein R⁵⁷ and R⁵⁸ are independently selected from an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocyclic, aryl, heteroaryl, aralkyl or heteroaralkyl group.

34. (New) A heat-sensitive lithographic printing plate precursor according to claim 12, wherein the N-imide group Q has one of the following formula:

- 35. (New) A heat-sensitive lithographic printing plate precursor according to claim 26, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.
- 36. (New) A heat-sensitive lithographic printing plate precursor according to claim 27, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.
- 37. (New) A heat-sensitive lithographic printing plate precursor according to claim 28, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.
- 38. (New) A heat-sensitive lithographic printing plate precursor according to claim 29, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.
- 39. (New) A heat-sensitive lithographic printing plate precursor according to claim 30, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.

- 40. (New) A heat-sensitive lithographic printing plate precursor according to claim 31, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.
- 41. (New) A heat-sensitive lithographic printing plate precursor according to claim 32, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.
- 42. (New) A heat-sensitive lithographic printing plate precursor according to claim 33, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.
- 43. (New) A heat-sensitive lithographic printing plate precursor according to claim 34, wherein said coating further comprises a dissolution inhibitor and wherein said precursor is a positive working lithographic printing plate precursor.
- 44. (New) A heat-sensitive lithographic printing plate precursor according to claim 26, wherein said coating further comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.
- 45. (New) A heat-sensitive lithographic printing plate precursor according to claim 27, wherein said coating further comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.
- 46. (New) A heat-sensitive lithographic printing plate precursor according to claim 28, wherein said coating further comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.

- 47. (New) A heat-sensitive lithographic printing plate precursor according to claim 29, wherein said coating further comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.
- 48. (New) A heat-sensitive lithographic printing plate precursor according to claim 30, wherein said coating further comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.
- 49. (New) A heat-sensitive lithographic printing plate precursor according to claim 31, wherein said coating further comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.
- 50. (New) A heat-sensitive lithographic printing plate precursor according to claim 32, wherein said coating further comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.
- 51. (New) A heat-sensitive lithographic printing plate precursor according to claim 33, wherein said coating further comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.
- 52. (New) A heat-sensitive lithographic printing plate precursor according to claim 34, wherein said coating further comprises a latent Brönsted acid and an acid-crosslinkable compound and wherein said precursor is a negative working lithographic printing plate precursor.